

Claims

What is claimed is:

1. A boat comprising:
a hull; and
a stringer disposed in the hull and comprising:
a first portion formed by a relatively low-strength material; and
a second portion formed by a relatively high-strength material.
2. The boat of claim 1 wherein the high-strength material is sufficient to support a motor.
3. The boat of claim 1 wherein the first stringer portion forms the structural framing of the boat and stiffens the hull.
4. The boat of claim 1 wherein the second stringer portion is bonded to the first stringer portion.
5. The boat of claim 1 wherein the first and second stringer portions are bonded to the hull.
6. The boat of claim 1 wherein the low-strength material is a relatively low-density polyurethane foam and the high-strength material is a relatively high-density polyurethane foam.
7. The boat of claim 6 wherein the high-density foam is impregnated with fiberglass.
8. The boat of claim 1 further comprising a fiberglass cloth extending over the first and second stringer portions.

9. The boat of claim 8 further comprising a resin extending through the fiberglass cloth and to the stringer portions to bond the fiberglass to the portions.
10. The boat of claim 1 wherein the first stringer portion comprises at least two spaced parallel beams, a nose disposed at the corresponding ends of the beams, and at least one cross piece extending from the beams.
11. A method of manufacturing a boat, the method comprising:
fabricating a first stringer portion of a relatively low-strength material;
fabricating a second stringer portion of a relatively high-strength material; and
mounting the stringer portions in a hull.
12. The method of claim 11 further comprising supporting a motor on the second stringer portion.
13. The method of claim 11 wherein the first stringer portion forms the structural framing of the boat and stiffens the hull.
14. The method of claim 11 further comprising bonding the second stringer portion to the first stringer portion.
15. The method of claim 11 further comprising bonding the first and second stringer portions to the hull.
16. The method of claim 11 wherein the low-strength material is a relatively low-density polyurethane foam and the high-strength material is a relatively high-density polyurethane foam.
17. The method of claim 16 further comprising impregnating the high-density foam with fiberglass.

18. The method of claim 11 further comprising disposing a fiberglass cloth over the first and second stringer portions.
19. The method of claim 18 further comprising applying a resin to the fiberglass cloth and to the stringer portions to bond the fiberglass to the portions.
20. A method of manufacturing a boat, comprising:
 - molding a hull of a plastic material.
 - molding a stringer of a plastic material,
 - placing the stringer in the hull; and
 - then allowing the stringer and the mold to cure to bond the stringer to the mold.
21. The method of claim 20 wherein the hull is of a glass fiber-reinforced resin and the stringer is a polyurethane foam.
22. The method of claim 21 wherein one portion of the stringer is a relatively low-density foam and another portion of the stringer is of a relatively high-density foam.
23. The method of claim 22 further comprising mounting a motor to the other portion of the stringer.
24. The method of claim 22 further comprising bonding the other portion of the stringer to the one portion of the stringer.
25. A method of manufacturing a boat, comprising:
 - forming a unitary stringer of a relatively low-strength material;
 - providing at least one strut of a relatively high-strength material;
 - bonding the at least one strut to the stringer,
 - bonding the stringer and the strut to a hull, and
 - supporting a motor on the strut.

26. The method of claim 25 wherein the low-strength material is a low-density polyurethane foam, and wherein the high-strength material is a relatively high-density polyurethane foam.

27. The method of claim 26 further comprising impregnating the high-density foam with fiberglass.

28. The method of claim 25 wherein the hull is molded from a glass fiber-reinforced resin and wherein the stringer is bonded to the hull by placing the stringer in contact with the hull after the stringer and the hull have been molded and before they have been completely cured, to chemically bond the stringer to the hull.